

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow. Claims 1-3, 8-10, and 12-14 were rejected. Claims 17-19 and 21 were allowed, and Claims 4-7, 11, 15, and 16 were objected to by the Examiner. Claims 4, 5, 11, and 15 have been amended. No new matter has been added. Accordingly, Claims 1-19 and 21 will be pending in the present application upon entry of this Amendment and Reply.

A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

Claim Objections

On page 3, Claims 4-7, 11, and 15-16 were objected to as being dependent upon a rejected base claim, although the Examiner indicated that such claims would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 4, 5, 11, and 15 have been rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 6-7 depend from Claim 5, and are therefore allowable for at least the same reasons as Claim 5. Claim 16 depends from Claim 15, and is therefore allowable for at least the same reasons as Claim 15.

Accordingly, it is submitted that Claims 4-7, 11, and 15-16 are allowable. Reconsideration and withdrawal of the objection to such claims is therefore respectfully requested.

Claim Rejections - 35 U.S.C. § 102(a)

On page 2 of the Office Action, Claims 1-3, 8-10, and 12-14 were rejected under 35 U.S.C. § 102(a) as being anticipated by U.S. Patent No. 6,548,361 to En et al. Applicants respectfully traverse this rejection.

Claim 1 is in independent form and recites a method comprising, in combination with other elements, “forming a first layer above the gate structure and above the substrate; forming a second layer above the first layer; and doping source and drain regions through the first layer and the second layer” (emphasis added).

En et al. does not identically disclose a method such as that recited in Claim 1. En et al. relates to an “SOI MOSFET and Method of Frabrication,” and discloses that a “gate 32 is disposed on” a “layer of semiconductor material 16” (column 3, lines 25-26). En et al. also discloses that “offset spacers 42” are “disposed adjacent each sidewall of the gate electrode 36” and are formed by a process in which “a layer of desired material . . . [is] deposited to at least the height of the gate electrode” (column 4, lines 57-58; column 6, lines 51-57; Figure 3C) (emphasis added). En et al. also discloses that “sidewall spacers 44 can be formed adjacent the offset spacers 42” (column 7, lines 25-26; Figure 3D) (emphasis added).

Accordingly, En et al. does not disclose that “offset spacers 42” and “sidewall spacers 44” are formed above a gate structure as recited in independent Claim 1. In contrast, such features are formed adjacent a “gate 32.”

Further, En et al. does not disclose “doping source and drain regions through the first layer and the second layer” as recited in independent Claim 1. As shown in Figure 3D of En et al. and described at column 7, lines 24-27:

Next, in step 76, the deep doped regions 30 of the source 22 and the drain 24 can be formed. The sidewall spacers 42, the offset spacers 44 and the gate electrode 36 act as a self-aligned mask for the implantation of the deep doped regions 30.

That is, the “offset spacers 42” and “sidewall spacers 44” of En et al. provide spacing for the implantation of dopants to form regions 30 (i.e., regions 30 do not underlie the “offset spacers 42” and “sidewall spacers 44”, which would be the case if the dopants traveled “through” such features). Accordingly, En et al. does not disclose “doping source and drain regions through the first layer and the second layer” as recited in independent Claim 1.

Accordingly, the Applicants submit that Claim 1 is patentable over En et al. Dependent Claims 2-3 and 8, which depend from independent Claim 1, are also patentable. See 35 U.S.C. § 112 ¶ 4.

Claim 9 is in independent form and recites a method comprising, in combination with other elements, “providing a first layer comprising at least one of silicon nitride and silicon dioxide above the strained semiconductor layer; providing a second layer above the first layer, the second layer containing nitrogen, titanium, tantalum, or carbon; implanting non-neutral dopants into the strained semiconductor layer through the first layer and the second layer” (emphasis added).

As described above, En et al. does not disclose “implanting non-neutral dopants into the strained semiconductor layer through the first layer and the second layer” as recited in Claim 9 (See Figure 3D and column 7, lines 24-27 of En et al.).

Accordingly, the Applicants submit that Claim 9 is patentable over En et al. Dependent Claims 10 and 12-14, which depend from independent Claim 9; are also patentable. See 35 U.S.C. § 112 ¶ 4.

The rejection of Claims 1-3, 8-10, and 12-14 should be withdrawn, because at least one limitation of independent Claims 1 and 9 is not identically disclosed by En et al. Accordingly, the Applicants request reconsideration and withdrawal of the rejection of Claims 1-3, 8-10, and 12-14 under 35 U.S.C. § 102(a).

* * *

It is submitted that each outstanding objection and rejection to the Application has been overcome, and that the Application is in a condition for allowance. The Applicants request consideration and allowance of all pending Claims 1-19 and 21.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 06-1447. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 06-1447. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 06-1447.

Respectfully submitted,

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By 

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